



**CTEH® Project #40442**  
**West Fertilizer Plant Explosion**  
**Summary of Air Monitoring Results**  
**April 23, 2013 07:00**

This data report discusses real-time air monitoring data collected between 4/22/2013 16:00 and 4/23/2013 04:00 in support of remediation operations conducted near the West Fertilizer Plant Explosion in West, TX.

Real-time air monitoring was conducted for VOCs, ammonia (NH<sub>3</sub>), nitrogen dioxide (NO<sub>2</sub>), lower explosive limit (LEL) and oxygen (O<sub>2</sub>) using remote-telemetry RAESystems® AreaRAEs and hand-held instruments such as RAESystems® MultiRAE.

Tables 1 and 2 (below) display data summaries for hand-held and AreaRAE instruments, respectively. Site maps and charts are available as attachments.

**Table 1: Hand-held Real-time Air  
Monitoring Summary<sup>1</sup>**  
**April 22, 2013 16:00 – April 23, 2013 04:00**

Analyte	Instrument	Number of Readings	Number of Detections	Average of Detections	Range of Detections
<b>Rail Right of Way</b>					
VOC	MulitiRAE	2	0	NA	< 0.1 ppm

<sup>1</sup>Please note: The data displayed here has not undergone complete QA/QC analysis and is presented in a preliminary format.  
PPM = Parts Per Million



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# Appendix

**Table 2**  
**Stationary AreaRAE Monitoring Stations Data Logged**  
**4/22/2013 16:00 to 4/23/2013 04:00**

Unit	Analyte	Count of Readings	Count of Detections	Average of Detections	Max Detection
<b>AR13</b>	LEL	2801	0	NA	< 1 %
	NH3	2801	0	NA	< 1 ppm
	NO2	2801	0	NA	< 0.1 ppm
	O2	2801	2801	20.9 %	20.9 %
	VOC	2801	0	NA	< 0.1 ppm
<b>AR14</b>	LEL	2814	0	NA	< 1 %
	NH3	2814	0	NA	< 1 ppm
	NO2	2814	7	0.1 ppm	0.1 ppm
	O2	2814	2814	20.9 %	21.3 %
	VOC	2814	0	NA	< 0.1 ppm
<b>AR16</b> Down Wind Mobile Unit	LEL	2717	0	NA	< 1 %
	NH3	2717	29	1 ppm	4 ppm
	NO2	2717	0	NA	< 0.1 ppm
	O2	2717	2717	20.9 %	20.9 %
	VOC	2717	150	0.5 ppm	1.2 ppm
<b>AR17</b>	LEL	2763	0	NA	< 1 %
	NH3	2763	1532	1 ppm	2 ppm
	NO2	2763	0	NA	< 0.1 ppm
	O2	2763	2763	20.9 %	20.9 %
	VOC	2763	19	0.2 ppm	0.4 ppm
<b>AR18</b>	LEL	2765	0	NA	< 1 %
	NH3	2765	0	NA	< 1 ppm
	NO2	2765	0	NA	< 0.1 ppm
	O2	2765	2765	20.9 %	21.3 %
	VOC	2765	0	NA	< 0.1 ppm

<sup>1</sup> The data in this table may include electronic drift. Drift is defined as any interference in the electrochemical sensor's ability to accurately report the concentration of a chemical in the atmosphere. Humidity and temperature changes throughout the monitoring period are typical sources of drift. Additionally, the data has not undergone complete QAQC as of this time.



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# Appendix

## Air Monitoring Zone Classifications<sup>1</sup> April 23, 2013

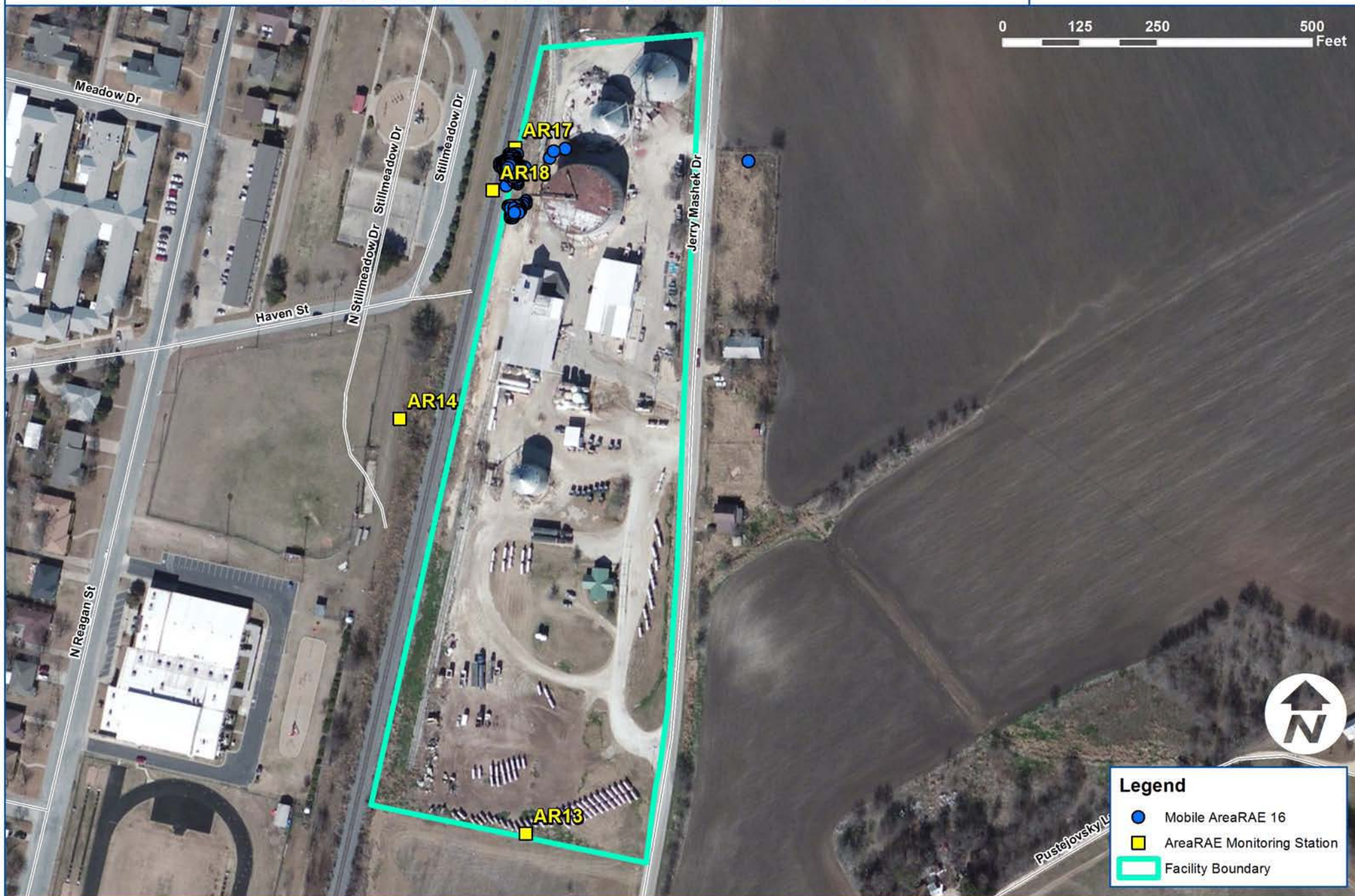
Project: 40442  
Client: OMI  
City: West, TX  
County: McLennan



# AreaRAE Monitoring Station Locations

4/22/2013 16:00 to 4/23/2013 04:00

Project: 40442  
Client: OMI  
City: West, TX  
County: McLennan

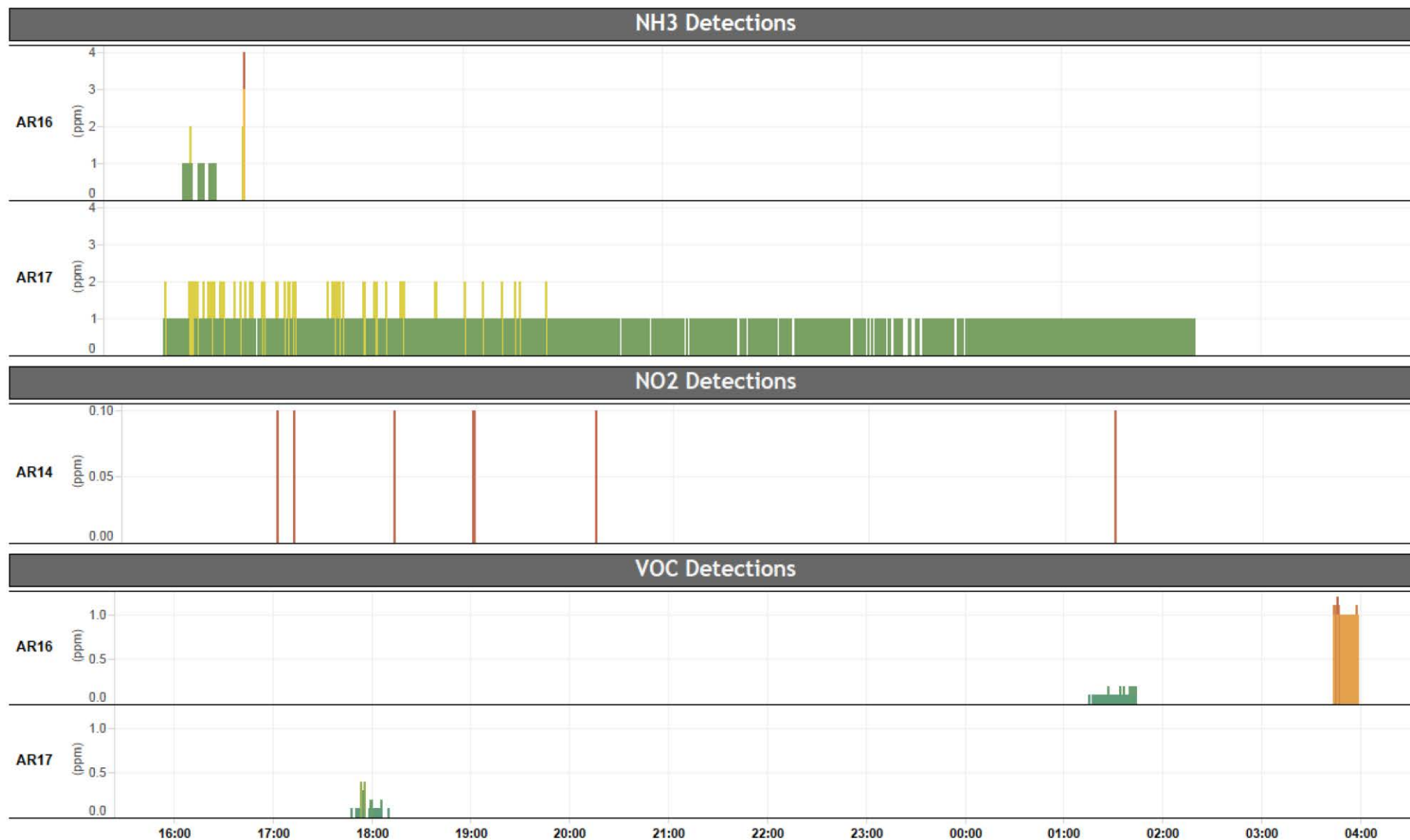


## Legend

- Mobile AreaRAE 16
- AreaRAE Monitoring Station
- Facility Boundary



**AreaRAE Detections**  
**4/22/2013 16:00 to 4/23/2013 04:00**

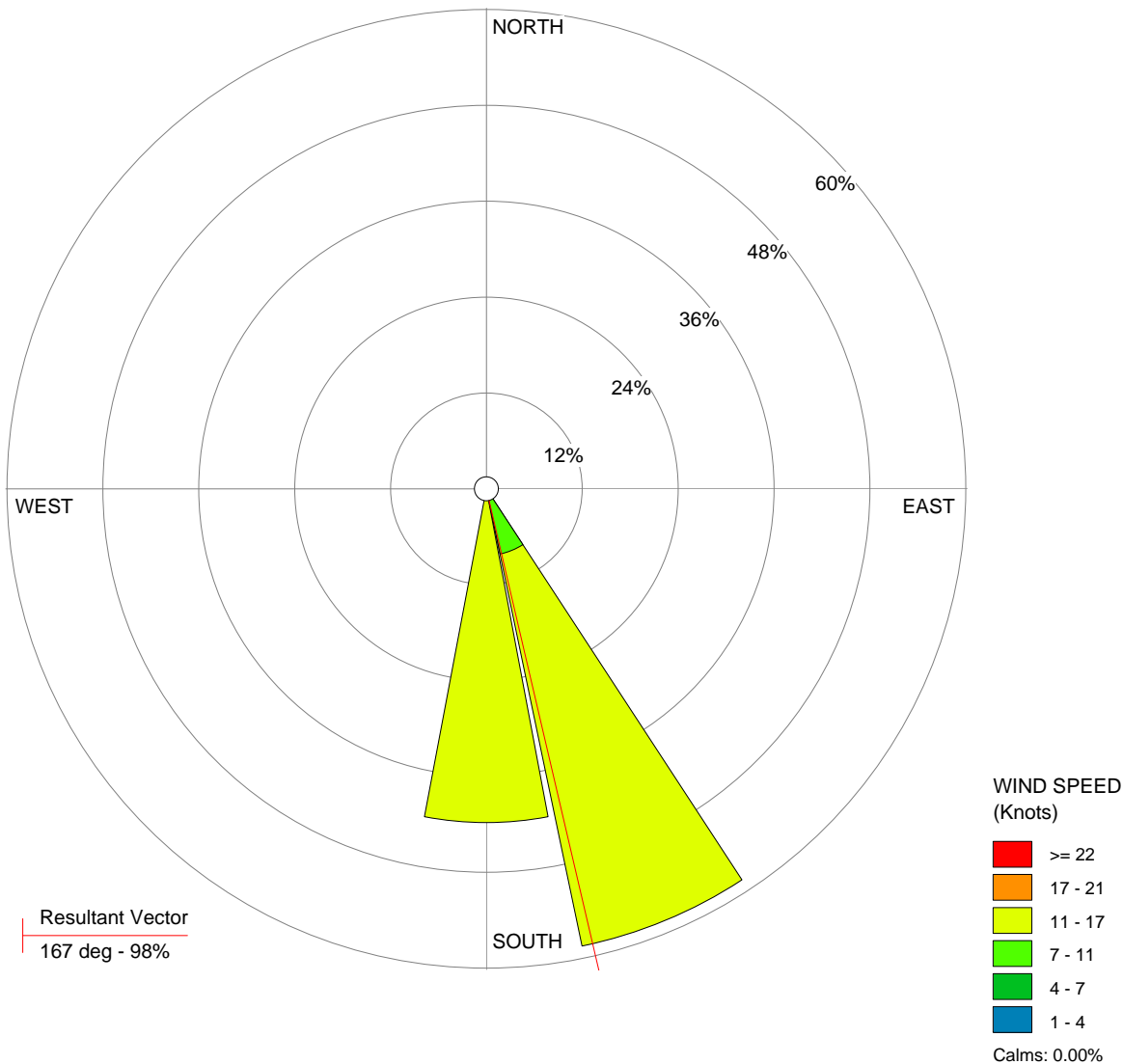


WIND ROSE PLOT:

**Wind Speed and Direction 4/22/2013 16:00 to 4/22/2013 04:00**  
**West, Tx**

DISPLAY:

**Wind Speed**  
**Direction (blowing from)**



COMMENTS:

Met Station: KACT Waco, TX

COMPANY NAME:

**CTEH**

MODELER:

**Jason Callahan**

CALM WINDS:

**0.00%**

AVG. WIND SPEED:

**14.75 Knots**



PROJECT NO.:

**40442 - OMI**